CHARLES DARWIN

Keith, Arthur. *Darwin Revalued.* London, 1955. Watts. Pp. x + 294. Price 25s.

WHEN Charles Darwin married Emma Wedgwood he had been slow in making up his mind although it was not by any means a plunge in the dark. It was the third time that the union of those two midland families had been cemented. Darwin was also slow in deciding to take his sociable wife to live in the solitude he thought necessary for his health and work. But he made this drastic decision after three years and they went to live in the bleak and lonely house where they made their home for forty years. At Downe, they were eight winding, hilly, miles from the railway station. For this reason Darwin had little company but much correspondence. For this reason too his contemporaries might know him less but we may know him more.

We have long known his love of nature and of observing and reflecting on it. We know that this and his love of fame were the necessary basis of what he patiently achieved at Downe. One other dominant trait, however, we have known less well. That was his love of money. He did not record this interest in his replies to Francis Galton's questions. But his accounts tell us what is a secondary but significant part of his story. With him, as with Samuel Pepys, keeping accounts was an abiding pleasure. Not because they might not balance favourably but because, as with Pepys, they always did balance favourably. Building a fortune demanded the same prudence and gave the same satisfaction as building a fleet did for the one or building a theory for the other.

These twin interests of Darwin, learned and unlearned, were, as the family history shows, both of them inherited. Together they led to the preservation of most detailed records of his life; more accurate records in many ways than we have for any other man of comparable importance in the history of thought. In addition to the twenty volumes of his collected works, there are the five volumes of the letters of Charles, edited by his son, and the two volumes devoted to Emma by her daughter. And there are also the seventeen account books. and four ledgers in Charles' handwriting as well as Emma's domestic accounts and ledger: all classified under twenty-four headings and detailed to the last penny. These and the house Darwin lived in were the sources available to Sir Arthur Keith for his revaluation of Darwin.

The result is a thorough and convincing portrait. It seems a modest piece of work and it does not begin well. The theme of illness and hypochondria is also frustrating since we can no longer offer the sympathy that is demanded by such an accumulation of distress. Fortunately, however, Emma's livelier, bolder and happier spirit lightens many pages. " Mr. Lyell is enough to flatten a party " is her comment on meeting the great geologist. And how well the scientific scene comes to life !

Keith was too devoted to Darwin to emphasize his weaknesses and inconsistencies. But he was too candid to conceal them. We notice how Darwin deplores the birth of his cousin's tenth child but grieves without restraint over the loss of his own tenth child. We notice too how he begs Asa Gray not to disclose his " doctrine " in 1857, and becomes frantic at the danger of losing his priority in 1858, but claims, in retrospect, never to have done anything for love of applause. We notice how he forgets enormous increments in the value of his equities (railway shares) when, in 1852, he confides to his cousin the loss he fears in the value of his mortgages: the discovery of gold in California, he says, is likely to " beggar " him. Such fancies as these have long given us a fellow feeling for Pepys; now we can enjoy the same feeling for Darwin.

The intellectual interest in this book concerns Darwin's method of work and thought. He was in the position (as we now see it) of being nearly a free man : nearly but not quite. He was, of course, frightened of the bad opinion of the public and correspondingly solicitous of the good opinion of his friends. He was also restrained not a little by his wife's traditional beliefs. Nor was his experience or education without its

drawbacks. We all know what he gained from the voyage of the Beagle. What he lost we may easily forget. He spent five most impressionable years away from civilization. This, no doubt, liberated his mind for his great task. But it also cut him off from the new scientific advances that were then being prepared.

Collecting the fruits of the Beagle's expedition was also not entirely to Darwin's profit. We do not grudge him the coral reefs. But while he was busy with barnacles the cell theory was growing up. What he had lost appeared twenty years later. Then he was faced with the need for re-deploying his ideas. He had to meet public criticism of *The Origin of Species:* especially, be it noted, that of Fleeming Jenkin (not Flemming Jenkins). In doing so, he betrayed his weakness. He abandoned his own plain and honest theory of natural selection which had been heavily attacked. He also abandoned the cell theory which he had failed to understand. He adopted Lamarckism, and deceived himself so far as to call it pangenesis. That is the painful part of Darwin's story which appears from Keith's account. Mendel, Galton and Huxley, who were concerned with the same problems as Darwin, were all younger men. They understood, each in his own way, the meaning of cell structure, and it was this understanding that enabled them, each in his own way, to correct Darwin's essential mistake. To correct it but not, unfortunately, to prevent its propagation.

The study of Darwin's life and work will continue to be rewarding in itself. And it will continue to throw new light on his place in science and in society. This is not likely to be the last book on Darwin, but many will find it the best book so far. It is a worthy memorial of Keith as well as of Darwin.

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INDIA

Chandrasekhar, S. *Population and Planned Parenthood in India.* Introduction by Julian Huxley. London, 1955. Allen & Unwin. Pp. xiii+108. Price 12s. 6d.

THIS well written, well produced book, dedicated "To the Mothers of India who suffer from improvident maternity," is by the author of *Hungry People and Empty Lands.**

Suited to the general public, it deals with the growth of India's population, alarming in itself and even more alarming as a portent—for to-day the death-rate is the decisive factor in Indian demography. The scope for reducing the death rate is enormous and such a reduction is bound to occur if the large-scale programmes envisaged in the First Five Year Plan are effectively put into operation. "But," writes Dr. Chandrasekhar, "there are serious drawbacks to a rapid reduction in mortality, *welcome in itself,* when fertility is high as it would aggravate the population problem." An annual increase of four to five million constitutes this problem, maintained at a tremendous human cost so that thousands, in Dr. Chandrasekhar's striking phrase, "have to sleep on our pavements and lead a parody of life."

Social and economic factors—the early and universal marriage dominating the Indian scene, the lamentable standard of living, primitive technique of farming and need for large-scale and rapid industrialization combined with the development of cottage industries—all are touched on and the possibility envisaged that in India, as in the West, industrialization and higher standards of living might well be accompanied by declining fertility.

Dr. Chandrasekhar, however, sees birth control as the major solution to India's over population and he deals exhaustively with the moral, religious and technical problems involved. It is permissible to wonder whether in a book of this kind a reasoned defence of the ethics of contraception was necessary. It seems a little old-fashioned. However, the attitudes of the various great religions are well described, and Westerners might ponder with profit the Hindu Way of Life as adumbrated in the *Vedas* and the *Dharma Sastras.* Every good Hindu must go through four stages. He must be a student, and this is really a

* Allen & Unwin, 1954. Price 18s.